

Application Serial No. 10/562,935  
Response to Office Action dated March 30, 2011

PATENT  
Docket: CU-4618

## AMENDMENTS

### Amendments to the Claims

The Listing of Claims presented below replaces all prior versions, and listings, of claims in the Application.

The Applicant wishes to make the following amendments to the claims of the above patent Application:

### Listing of Claims

1. (cancelled)
2. (cancelled)
3. (cancelled)
4. (cancelled)
5. (cancelled)
6. (cancelled)
7. (withdrawn) A method for decreasing absorption of plasma glucose in a vertebrate, including mammal and bird, the method comprising administering to a vertebrate, including mammal and bird, in a sufficient amount and/or at a sufficient rate to enable a desired effect on glucose absorption, AKG, AKG derivatives or metabolites, AKG analogues, or mixtures thereof.
8. (withdrawn) A method for preventing, inhibiting, or alleviating a high plasma glucose condition in a vertebrate, including mammal and bird, the method comprising administering to a vertebrate, including mammal and bird, in a sufficient amount and/or at a sufficient rate to enable a desired effect on said condition, AKG, AKG derivatives or metabolites, AKG analogues, or mixtures thereof.
9. (withdrawn ) The method according to claim 7, wherein the AKG, AKG derivatives or metabolites, AKG analogues or mixtures thereof are selected from the group consisting of alpha-ketoglutaric acid (AKG), ornitine-AKG, arginine-AKG,

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glutamine-AMG, glutamate-AMG, leucine-AMG, chitosan-AMG and other salts of AMG with amino acids and amino acids derivatives; mono- and di-metal salts of AMG such as CaAMG, and NaAMG.

10. (withdrawn) The method according to claim 7, wherein the vertebrate is a rodent, such as a mouse, rat, guinea pig, or a rabbit; a bird, such as a turkey, hen, chicken or other broilers; farm animals, such as a cow, a horse, a pig, piglet or free going farm animals; or a pet, such as a dog, or a cat.
11. (withdrawn) The method according to claim 7, wherein the vertebrate is a human being.
12. (withdrawn) The method according to claim 8, wherein the high plasma glucose condition is Type I or Type II diabetes mellitus.
13. (withdrawn) Use of AMG, AMG derivatives or metabolites, AMG analogues or mixtures thereof, for the manufacture of a composition for the prevention, alleviation or treatment of a high plasma glucose condition.
14. (withdrawn) The use according to claim 13, wherein the high plasma glucose condition is diabetes mellitus type I or II.
15. (withdrawn) Use of AMG, AMG derivatives or metabolites, AMG analogues or mixtures thereof, for the manufacture of a composition for the prevention, alleviation or treatment of malnutrition.
16. (withdrawn) The use according to claim 13, wherein the composition is a pharmaceutical composition with optionally a pharmaceutically acceptable carrier and/or additives.
17. (withdrawn) The use according to claim 13, wherein the composition is a food or

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a feed supplement.

18. (withdrawn) The use according to claim 17, wherein the food or feed supplement is a dietary supplement and/or a component in the form of solid food and/or beverage.
19. (withdrawn) The use according to claim 13, wherein the AKG, AKG derivatives or metabolites, AKG analogues or mixtures thereof, in the manufactured composition, is in a therapeutically effective amount.
20. (withdrawn) The use according to claim 19, wherein the therapeutically effective amount is 0.01-0.2 g/kg bodyweight per daily dose.
21. (withdrawn) The method according to claims 8, wherein the AKG, AKG derivatives or metabolites, AKG analogues or mixtures thereof are selected from the group consisting of alpha-ketoglutaric acid (AKG), ornitine-AKG, arginine-AKG, glutamine-AKG, glutamate-AKG, leucine-AKG, chitosan-AKG and other salts of AKG with amino acids and amino acids derivatives; mono- and di-metal salts of AKG such as CaAKG, and NaAKG.
22. (withdrawn) The method according to claim 8, wherein the vertebrate is a rodent, such as a mouse, rat, guinea pig, or a rabbit; a bird, such as a turkey, hen, chicken or other broilers; farm animals, such as a cow, a horse, a pig, piglet or free going farm animals; or a pet, such as a dog, or a cat.
23. (withdrawn) The method according to claim 8 wherein the vertebrate is a human being.
24. (withdrawn) The use according to claim 16, wherein the composition is a pharmaceutical composition with optionally a pharmaceutically acceptable carrier and/or additives.

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25. (withdrawn) The use according to claim 17, wherein the composition is a food or a feed supplement.
26. (withdrawn) The use according to claim 18, wherein the food or feed supplement is a dietary supplement and/or a component in the form of solid food and/or beverage.
27. (withdrawn) The use according to claim 19, wherein the AKG, AKG derivatives or metabolites, AKG analogues or mixtures thereof, in the manufactured composition, is in a therapeutically effective amount.
28. (withdrawn) The use according to claim 20, wherein the therapeutically effective amount is 0.01-0.2 g/kg bodyweight per daily dose.
29. (currently amended) A method of treatment for improving the absorption of amino acids for a vertebrate in need thereof comprising administering to the vertebrate, in a sufficient amount and/or at a sufficient rate, to enable a desired effect on amino acids absorption, alpha-ketoglutarate (AKG), derivatives, metabolites or analogues thereof selected from the group consisting of AKG, ~~ornithine-AKG, arginine-AKG, glutamine-AKG, glutamate-AKG, leucine-AKG,~~ chitosan-AKG, and mono- and di-metal salts of AKG, ~~or mixtures thereof.~~
30. (withdrawn) The method according to claim 29, wherein the metal salt of AKG is selected from CaAKG, Ca(AKG)<sub>2</sub>, and NaAKG.
31. (cancelled)
32. (previously presented) The method according to claim 29, wherein the vertebrate is selected from the group consisting of a mammal and a bird.

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33. (previously presented) The method according to claim 29, wherein the vertebrate is a rodent selected from the group consisting of a mouse, rat, guinea pig, and a rabbit.
34. (previously presented) The method according to claim 29, wherein the vertebrate is a bird selected from the group consisting of a turkey, hen, chicken and other broilers.
35. (previously presented) The method according to claim 29, wherein the vertebrate is a farm animal, selected from the group consisting of a cow, a horse, a pig, and a piglet.
36. (previously presented) The method according to claim 29, wherein the vertebrate is a domestic pet selected from the group consisting of a dog and a cat.
37. (previously presented) The method according to claim 29, wherein the vertebrate is a human being.
38. (previously presented) The method according to claim 29, wherein the amino acid is an essential amino acid.
39. (previously presented) The method according to claim 38, wherein the essential amino acid is selected from the group consisting of isoleucine, leucine, lysine and proline.